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REPORT OF THE SECRETARY-GENERAL PURSUANT TO PARAGRAPH 6 OF SECURITY COUNCIL RESOLUTION 1210 (1998)

I. INTRODUCTION

1. The present report is submitted to the Security Council pursuant to paragraph 6 of resolution 1210 (1998), and provides information up to 31 March 1999 on the distribution of humanitarian supplies throughout Iraq, including the implementation of the United Nations Inter-Agency Humanitarian Programme in the three northern governorates of Dahuk, Erbil and Sulaymaniyah. It also describes developments in the implementation of the programme since the previous report, submitted to the Council on 22 February 1999 (S/1999/187), 90 days after the entry into force of paragraph 1 of resolution 1210 (1998). The Council also has before it my report on the review and assessment of the implementation of the humanitarian programme established pursuant to resolution 986 (1995), covering the period from December 1996 to November 1998 (S/1999/481). The Council already has before it the report of the panel on humanitarian issues in Iraq (S/1999/356, annex II), established pursuant to the decision taken by the Council on 30 January 1999 (see S/1999/100).

II. REVENUE GENERATION, PROCUREMENT AND DISTRIBUTION TO END-USERS

A. Oil production and sale of petroleum and petroleum products

2. Since the beginning of the current phase and as at 31 March 1999, the oil overseers and the Security Council Committee established by resolution 661 (1990) have reviewed and approved a total of 90 contracts involving purchasers from 26 countries, as follows: Algeria (2), Austria (1), Belgium (1), Bulgaria (2), Canada (2), China (6), Greece (1), France (6), India (1), Ireland (1), Italy (6), Kenya (1), Malaysia (2), Morocco (2), Netherlands (2), Panama (1), Russian Federation (30), South Africa (1), Spain (3), Switzerland (4), Syrian Arab Republic (2), Turkey (5), United Arab Emirates (2), United Kingdom of Great Britain and Northern Ireland (4), United States of America (1) and Viet Nam (1).

3. The total quantity of oil approved for export under those contracts corresponds to approximately 335 million barrels for 180 days - the highest amount since the beginning of the programme provided for under Security Council

resolution 986 (1995). During this phase, in December 1998, oil prices for Iraqi crude oil reached the lowest mark, less than $7 per barrel for some destinations. However, as from March 1999 prices began to recover. At current prices, total revenue for the entire 180-day period is estimated to be $3.9 billion, including revenues earmarked for the pipeline fee.

4. As at 31 March 1999, the export of petroleum from Iraq under the current phase proceeded smoothly with excellent cooperation among the United Nations oil overseers, the independent inspection agents for oil (Saybolt Nederland BV), the relevant authorities of Turkey, the Iraqi State Marketing Organization for Oil and the national oil purchasers. A total of 187 loadings, 237 million barrels in all, with a value of $2.247 billion, had been completed. About 43 per cent of the liftings were made at Ceyhan, Turkey.

5. The oil overseers have continued to advise and assist the Security Council Committee on pricing mechanisms, contract approval and modifications, and other pertinent questions relating to exports and monitoring, under resolution 986 (1995) and all subsequent resolutions. The oil overseers and Saybolt have worked closely to ensure the monitoring of the relevant oil installations as well as the liftings.

6. On 9 March 1999, the oil overseers informed the Security Council Committee that during the second half of phase V the increase in the total level of exports, accompanied by the corresponding exports from both the north and the south of Iraq, had led to an increase in the share of crude oil exported from Mina al-Bakr. During the 182nd and 183rd meetings of the Committee, it was established that this was a temporary situation resulting from technical difficulties that were being addressed. At its 185th meeting, the Committee took note of this situation, with the understanding that the Kirkuk-Yumurtalik pipeline would be used to its maximum capacity, and that all efforts would be taken to correct the imbalance without delay. The situation would be reviewed at the end of the period referred to in paragraph 1 of resolution 1210 (1998).

B. United Nations accounts pertaining to the Iraq Programme

7. The United Nations accounts pertaining to the Iraq Programme are divided into seven separate funds pursuant to paragraphs 8 (a) to (g) of Security Council resolution 986 (1995). As at 31 March 1999, of the $5.256 billion authorized under resolution 1210 (1998) for the 180-day period starting on 26 November 1998 (phase V), $1,573,858,234.90 of oil proceeds have been received in the account, bringing the total oil sale since inception to $10,960,708,186.75. Annex I to the present report shows the allocation of the total oil revenue among the various funds and the corresponding expenditures as at 31 March 1999. Annex II shows the number and value of the letters of credit pertaining to oil proceeds and humanitarian supplies.

C. Prioritization, processing and approval of applications, delivery to Iraq and distribution to end-users

ESB (53 per cent) account

8. Over the reporting period, the Office of the Iraq Programme simultaneously processed applications for phases III, IV and V. However, during the first half of phase V, owing to reduced oil revenues, coupled with the high value both of applications received directly under phase V and of those transferred from phase IV, circulation to the Security Council Committee of phase V applications for commodities other than foodstuffs or pharmaceuticals and medical supplies was largely held in abeyance pending the outcome of consultations with the Government of Iraq on adjusting the sectoral allocations of distribution plan V. In the interim, full evaluation continued for all phase V applications received by the Secretariat.

9. The increase in oil revenues during the second half of phase V and revision of the sectoral allocations allowed the resumption after 22 March 1999 of unrestricted circulation of phase V applications. (Data on the large number of applications so circulated after the period covered by the present report will be included in my next report to the Security Council.) On the basis of projections for oil revenues for the balance of phase V, it is estimated that virtually all applications received as at 31 March 1999 will be funded, after approval, in all sectors except for food handling equipment and agriculture, where some prioritizing may be required should the value of contracts received remain in excess of final sectoral allocations despite rising revenues.

10. During the reporting period, the Office of the Iraq Programme, in consultation with the Government of Iraq, transferred from phase IV to phase V 166 applications valued at $414,895,727, including 42 applications previously approved by the Security Council Committee. As at 31 March 1999, 34 applications transferred from phase IV, valued at $179,607,075, were approved by the Committee for funding under phase V.

11. In addition to the phase IV applications now transferred to phase V, 802 phase IV applications valued at $1,694,175,569 have been received by the Secretariat as at 31 March 1999, of which 656 valued at $1,443,548,671 have been approved, 53 valued at $172,973,014 have been placed on hold, none were pending with the Committee, and 29 were declared null and void. For phase V, 586 applications valued at $1,310,494,493 have been received by the Secretariat, of which 304 valued at $867,347,919 have been approved, 7 valued at $3,124,463 have been placed on hold, 106 valued at $170,516,280 were pending before the Committee, and 4 were declared null and void.

12. For oil spare parts and equipment under phase IV, 546 applications valued at $286,438,462 have been received by the Secretariat as at 31 March 1999, of which 398 valued at $237,683,875 have been approved, 92 valued at $28,491,493 have been placed on hold, none were pending with the Committee, and 8 were declared null and void. Under phase V, 46 applications for oil spare parts valued at $27,754,787 have been received by the Secretariat, of which 6 valued at $609,420 have been approved, 6 valued at $5,896,027 have been placed on hold,

6 valued at $2,574,350 were pending before the Committee, and none were declared null and void.

13. While applications submitted for the food sector generally have been sufficient to meet the adjusted requirements for the food basket under phases IV and V, insufficient applications for pulses were received under phase IV and as yet none have been received under phase V. Similarly, for targeted nutrition items in the health sector, applications for only 20 per cent of the amount allocated under the enhanced distribution plan for phase IV have been received by the Secretariat; no applications for targeted nutrition have been received as yet for phase V.

14. Applications for pharmaceuticals and medical supplies have been slow to arrive under phase V, as under previous phases, only 13 phase V applications, valued at $15,929,375, having been received as at 31 March 1999, in contrast to 34 applications for medical equipment valued at $36,108,481 received over the same period. Thus, whereas distribution plan V sets the ratio of pharmaceuticals and medical supplies to medical equipment at 40 to 60 per cent, the current ratio is 30 to 70 per cent. The Government of Iraq has been advised therefore that adequate contracts should be signed and submitted to correct this imbalance.

15. During the reporting period, as funds have become available, approval letters have continued to be issued for phases III, IV and V. For phase III, as at 31 March 1999, 629 approval letters valued at $1,180,192,950 have been issued, while 30 valued at $34,686,110 were awaiting the availability of funds. For phase IV, 1,019 approval letters valued at $1,647,705,886 have been issued, while 35 valued at $33,526,664 have not yet been issued. The availability of funding for phases III and IV continued to be adversely affected by the slow rate of reimbursement from the ESC (13 per cent) account to the ESB (53 per cent) account for goods notified as delivered to northern Iraq. A proposal by the Office of the Iraq Programme to amend the reimbursement procedures to remedy this situation remains under consideration by the Security Council Committee. For phase V, as at 31 March 1999, 177 approval letters valued at $631,476,895 have been issued, while 133 valued at $236,480,444 were awaiting the availability of funds.

ESC (13 per cent) account

16. With respect to the ESC (13 per cent) account, as at 31 March 1999, 342 applications valued at $66,424,669 have been funded under phase IV. Under phase V, a total of 133 applications valued at $26,737,425 have been submitted, of which 57 valued at $14,944,304 were approved, one valued at $1,865,412 was placed on hold, one was declared null and void, and 74 were being processed. During the reporting period, intensified liaison has continued between the Office of the Iraq Programme and the United Nations agencies and programmes, as has the reporting by the independent inspection agents for humanitarian supplies of the arrival in Iraq of commodities financed by the ESC (13 per cent) account.

III. OBSERVATION AND MONITORING ACTIVITIES

A. Inspection and authentication of humanitarian supplies

17. During the reporting period, the firm of Cotecna Inspection S.A., which replaced Lloyd's Register as the United Nations independent inspection agents for humanitarian supplies on 1 February 1999, continued to authenticate the arrival of humanitarian supplies at the entry points at Al-Waleed, Trebil, Umm Qasr and Zakho, as well as to report on the arrival of humanitarian supplies procured by the United Nations agencies and programmes for the three governorates of Dahuk, Erbil and Sulaymaniyah. The Office of the Iraq Programme continues to request permission to set up a mobile laboratory at Trebil pursuant to the recommendation contained in my report of 1 February 1998 (S/1998/90) that the independent inspection agents be enabled to perform quality tests inside Iraq. To date, the Government of Iraq has not granted approval, stating that the added cost of the mobile laboratory cannot be justified.

B. Monitoring of oil spare parts and equipment

18. Since my last report, further shipments of oil spare parts and equipment procured under resolutions 1153 (1998) and 1175 (1998) have arrived in Iraq. Deliveries of these goods are expected to increase significantly over the next few months, as equipment manufactured to order becomes available. Therefore, it is planned to increase the strength of Saybolt, which, together with Cotecna, is responsible for the effective monitoring of oil spare parts and equipment inside Iraq under the monitoring mechanism established pursuant to resolution 1175 (1998).

C. United Nations observation mechanism

19. During the period under review, greater emphasis has been put on the necessity and importance of close cooperation between the three tiers of the observation mechanism, with a view to maximizing its efficiency and effectiveness. This was reflected by the mechanism's improved ability to operate in a complementary manner and a number of joint activities beginning in February 1999.

20. As described in my interim report of 22 February 1999 (S/1999/187), observations by international staff were interrupted by two temporary relocations, in mid-November and mid-December 1998. During the second half of the reporting period, observation activities resumed, although on a more limited basis. In January and February 1999, in response to the uncertain security situation, the duration and range of observation visits were curtailed to ensure the safety of United Nations staff. Normal activities resumed in March and April 1999, albeit with continuing emphasis on precautionary measures. Geographical Observation Unit observers continued to register limited activities, especially in the agriculture, education and health sectors, as a result of the non-availability of Government required escorts. The United Nations Children's Fund (UNICEF) reported similar constraints in its observation activities in the education sector. The number of Ministry of Education escorts

available continues to be limited to four shared among two United Nations observation units and two agencies, contrary to previous assurances by the Ministry of Foreign Affairs that sufficient escorts would be made available. Despite the efforts of the Humanitarian Coordinator in raising these issues with the Ministry of Education, the Ministry remains uncooperative in facilitating an appropriate level of observation.

21. The sectoral observers of the World Food Programme (WFP), during the period under review, undertook a total of 75,699 observation visits. By 31 March 1999, all of the 43,958 distribution agents in Iraq had been visited. Agents are now being re-sampled to ensure continuing observation coverage. Also by 31 March 1999, spot checks had covered 11.3 per cent of all the households in the country, selected according to a statistical model. The Government notified WFP that household spot checks were temporarily suspended for the month of January 1999. Instead, the number of targets for food agent spot checks in January was doubled, from 2,500 to 5,000. WFP observation activities in the three northern governorates were unaffected by the events in the centre and south. A mission was undertaken by the WFP Observation Coordinator to the northern governorates in December 1998 to address discrepancies in distribution efficiency findings among the three governorates, and between the north and the central and southern regions of Iraq, as registered during the previous reporting period.

22. In the agriculture sector, the Food and Agriculture Organization of the United Nations (FAO) carried out several observation activities and surveys, including an animal health and poultry production end-user sample survey and one on the effects of the current drought on crop yield and livestock production. In the water and sanitation sector, UNICEF collected data in the governorates of Diala, Missan and Ninevah, as well as Baghdad City, as part of the programme assessment exercise in February 1999. In the electricity sector, the United Nations Development Programme (UNDP) and the Department of Economic and Social Affairs of the Secretariat carried out 147 observation visits to various power plants, main warehouses, and distribution and transmission substations or sites in the 15 central and southern governorates. These visits were intended to examine the quantity of goods received and their conformity with item descriptions as stated in purchase orders and also to confirm the actual needs for the requested items, together with progress in implementation and the impact of inputs under the programme. In the north, observation activities were based on criteria and methodology prepared by UNDP and the Department to ensure compliance with distribution procedures, as well as reliable installation of spare parts and equipment.

23. The National Child and Maternal Mortality Survey, launched by UNICEF and the World Health Organization (WHO) at the end of February 1999 in the centre and south of the country, is nearly complete. The sample size included 24,000 households and was carried out by 87 interviewing teams over a 20-day period. An international consultant is in the process of finalizing and analysing the data. A similar survey is currently under way in the three northern governorates, covering 16,000 households in 24 districts and 34 sub-districts selected randomly.

24. In the education sector, the United Nations Educational, Scientific and Cultural Organization (UNESCO) visited a total of 294 schools, universities, colleges, institutes and warehouses in the centre and south to verify both the impact of programme inputs and to observe the arrival and distribution of commodities. In the higher education sub-sector, the Ministry of Higher Education limited UNESCO observations to the vicinity of Baghdad City, citing lack of transport for its escorts as the reason for this limitation. UNESCO assigned an international observer for the three northern governorates in January 1999, who has since visited 147 schools, 5 warehouses and 3 local education authority workshops, as well as several institutes.

IV. PROGRAMME IMPLEMENTATION: EFFECTIVENESS, EQUITABILITY AND ADEQUACY

A. Implementation of the programme in the centre and south of Iraq

Food

25. As at 31 March 1999, foodstuffs and food handling equipment valued at $3,213,390,717 had arrived in Iraq since the beginning of the programme, of which an amount worth $2,785,064,876 (86.6 per cent) was distributed to end-users in the centre and south of the country. The focus of activity in this sector during phase V is to provide a food basket of 2,200 kilocalories per person per day to every registered adult.

26. Under phases IV and V, the distribution of an enhanced food basket was envisaged, containing, in addition to the basic commodities, full cream powdered milk and/or cheese for adults, weaning cereals for infants and increased rations of vegetable oil and infant formula. Owing to a slow build-up of stocks, adult milk and cheese were distributed for the first time in January and February 1999, respectively. Weaning cereal has been included in the ration as from January 1999, together with an increased ration of infant formula. Overall, the distribution of the basic food basket during November and December 1998 covered 96 per cent of the basic requirements for the two months. The food basket distributed from January to April 1999 covered 94 per cent of the total enhanced requirements for the four months.

27. After 25 months of distribution, the cumulative impact of the programme ration is still difficult to measure. The food basket distributed under the first three phases of the programme raised the daily caloric intake by 60 per cent and protein intake by 65 per cent over the previous national ration, reflecting a net gain compared to the pre-programme period. Distributions under phase V were expected to further raise caloric, protein and calcium intake by 8 per cent, 9 per cent and 137 per cent, respectively.

28. As a result of limited stocks of pulses, vegetable oil, salt and dairy items, the Government has not been able to announce a full food basket for any of the months under review. The caloric value of the food basket has decreased over the course of the reporting period. The reduction of calories in the food basket is attributable to delays in arrivals and in the submission of contracts for insufficient quantities of a range of commodities. The orders for pulses in

phase IV and V have used up only 35 per cent of the agreed allocation; orders for cooking oil have used up only 72 per cent of the agreed allocation; and orders for milk and cheese have used up only 68 per cent of the agreed allocation.

29. There have been no significant delays in the monthly food basket distribution. Spot checks carried out by WFP observers in the centre and south of the country indicate that at least 97 per cent of distribution agents and 98 per cent of households received their full monthly allocation within the designated distribution cycle. There has been a marked improvement in distribution efficiency in the centre and south during the reporting period.

30. As in the past, food basket commodities were more widely accepted in the centre and south than in the north. In general, the best accepted commodities were salt, sugar and milk, while the least accepted was tea, considered too weak to satisfy local consumption habits. Spot checks continue to indicate a faster consumption rate in the centre and south. Salt continues to be the most rapidly consumed food basket item in both the centre and south and the north, while wheat flour and sugar are consumed less quickly.

Health and nutrition

31. As at 31 March 1999, medicine and supplies valued at $570,351,685, procured under the bulk purchase arrangement, had arrived in Iraq since the beginning of the programme, of which amounts worth $247,273,282 (43.3 per cent) were distributed to end-users in the centre and south of the country. The focus of activity in this sector has been to provide a broad range of medicines and medical and dental equipment, and to support the distribution of these supplies.

32. As part of its programme of technical support to drug policy and management, WHO has been working during the reporting period with Kimadia, the Iraqi State company for drug imports, to computerize its system for drug management. The work is expected to be completed by the end of 1999. In view of database discrepancies between Kimadia, the Office of the Iraq Programme and WHO, the latter has undertaken to review all the components of the database for the entire duration of the programme. So far, WHO has verified data in all the stores, as well as letters of credit. In addition, a reference list for medicines has been prepared with unified codes for data streamlining at all levels.

33. The average delay in the distribution of medical supplies and equipment from Kimadia central warehouses to end-user facilities remained at about three months for items tracked by WHO during the reporting period. However, as the amount of drugs, supplies and equipment remaining in warehouses has risen to almost $300 million, concern about the efficiency of distribution has increased. In an effort to find a solution to distribution bottlenecks, the United Nations system is currently engaged in an extensive review of the problem in close consultation with the Government of Iraq. Efforts to improve Kimadia's overall efficiency in the management of drugs and other medical supplies, particularly to enhance its capacity to record, plan and distribute such items, have been intensified. The reasons for distribution bottlenecks are multiple and complex. A key reason is the decline in professional competence and motivation,

suggesting the need for a programme of human development and training for the health sector. Erratic arrivals have also contributed to the bottlenecks, since commodities from earlier phases have been arriving at the same time as more recently ordered goods. In addition, more recent deliveries consist of bulkier equipment and spare parts, which further strains the handling capacity of Kimadia warehouses and affects timely data entry.

34. WHO has reported that the Kimadia warehouses currently operate at 20 to 35 per cent of their pre-sanction capacity. The warehouses have no proper handling equipment, and lack transport to move the supplies to end-user facilities. There is a legal requirement in Iraq to have all received drugs and medical supplies tested for quality. However, limited control capacity and the increasing number of items arriving in the country contribute to further delays. Moreover, the availability of several brand-name products for the same generic items further complicates the management and use of drugs at all levels. WHO has reported an increase in the average delay for quality control testing from two weeks at the beginning of the programme to four weeks in the first quarter of 1999. Furthermore, installation and commissioning of some equipment await the arrival of complementary parts as well as the technical staff from supplier companies.

35. Recent WHO observations indicate better availability of tracked medicines at hospitals and public clinics in the centre and south of the country than in health centres and chronic illness pharmacies. The latter are facing shortages in five or six essential drugs, because of changes in the treatment course for patients from one type of drug to another with fewer side effects, resulting in overstocking of one type of drug and shortages of others. Observations in March and April 1999 show that distributed medicines for chronic diseases cover from 30 to 60 per cent of actual needs, which is significantly lower than previously reported figures. While hospital in-patients continue to receive the full monthly course of treatment, only about half of the out-patients receive the same.

36. The extent of malnutrition is a critical factor in the health of the population. According to the nutrition status surveys conducted by UNICEF in collaboration with the Ministry of Health, the prevalence of general malnutrition in the centre and south has changed very little in the past two years. General malnutrition (weight for age) was found to occur in 14.1 per cent of infants in 1996, in 14.7 per cent of infants late in 1997 and 14.7 per cent of infants in the most recent survey, of October 1998. General malnutrition among children under five in the centre and south was found to occur in 23.4 per cent of children in 1996, in 24.7 per cent of children in 1997 and in 22.8 per cent of children in the most recent survey, of March 1998. While there has been no significant reduction in general malnutrition among infants or among children under five, previously rising prevalence rates have stabilized, albeit at an unacceptably high level. UNICEF conducted a nutritional status survey during the second round of national immunization days for polio in April 1999 in 127 primary health care centres. Fieldwork was completed and data entry has started. Given that the age group subject to polio immunization is generally limited (0-6 months), the surveys will be reliable only for the prevalence of malnutrition among infants.

37. The enhanced distribution plan (phase IV) and phase V each provide for $8 million worth of high protein biscuits for pregnant and lactating women. Both phases provide also for 1,500 tons of therapeutic milk each, valued at about $2.8 million per phase. As at 31 March 1999, the Ministry of Health had signed four contracts for therapeutic milk and three contracts for high protein biscuits. The first contract valued at $1,692,100 for the procurement of high protein biscuits was received by the Security Council Committee on 3 March 1999 and approved on 9 March, but the supply has not yet arrived in the country. In addition, the Ministry of Health has concluded contracts with suppliers covering the full 1,500 tons of therapeutic milk allocated during phase IV. However, no new applications for either phase IV or phase V have been received since 3 March 1999. This comes to slightly over 15 per cent of the total allocations for the two targeted nutrition commodities in phases IV and V.

Water and sanitation

38. As at 31 March 1999, supplies for the water and sanitation sector in the centre and south valued at $56,791,538 had arrived in Iraq since the start of the programme, of which an amount worth $25,146,353 (44 per cent) had been installed at sites or delivered to end-users. The focus of activity in this sector has been to improve the quantity and quality of water in urban areas by maintaining existing treatment sites and by providing limited inputs for operating urban sewage networks. In rural areas, the focus of activity has been to increase the provision of treated water by the installation of compact units for smaller-scale water treatment.

39. The water system in the centre and south of Iraq is composed of 218 traditional water treatment plants, 1,191 compact water treatment plants and 51 water boosting stations serving consumers in urban and rural areas. To date, a total of 1,382 pumps, constituting approximately one third of all pumps that have arrived in the country, have been delivered to 495 of these types of project sites. A smaller number of circuit breakers and other supplies have been provided. In the treatment plants, which have received a combination of pumps, circuit breakers and other supplies, the output of water in litres per person per day has increased modestly. However, in terms of water quantities available at the end-user level, coverage has decreased as a result of deterioration in the distribution network, illegal connections and misuse of water, estimated at more than 50 per cent in Baghdad.

40. The two water purification chemicals used in treatment plants in Iraq are chlorine and alum sulphate. As at 31 March 1999, 4,330 tons of alum sulphate, representing 32 per cent of the total ordered quantity, 6,303 tons of chlorine, representing 75 per cent of the ordered quantity, and 100 tons of bleaching powder, representing 33 per cent of the ordered quantity had arrived in the country. A total of 674 alum dosing pumps and 303 chlorinators had also arrived, representing 96 and 100 per cent of the total ordered quantities. Consequently, 448 alum dosing pumps and chemical dosing pumps and 288 chlorinators have been put into use.

41. The sewerage system in Iraq is composed of 14 sewage treatment plants, some 250 vertical sewage pumping stations, more than 1,000 submersible pumping stations and thousands of kilometres of pipes forming the collection network. A

total of 60 vertical pumps and 61 submersible pumps, which had previously been received, have been installed during this reporting period in various locations throughout Baghdad. Jetting vehicles, high-pressure cleaning machines, cesspit-jetting units and cesspool emptier tankers have been provided to the General Establishment for Water and Sewage for areas outside Baghdad in order to clear sewage networks. The distributed backhoe loaders were used for repair and maintenance. United Nations observers report large amounts of untreated sewage being discharged into rivers as the treatment plants are either non-operational or operating at very low efficiency levels. Further deterioration is expected because of the lack of sufficient equipment and needed spare parts.

42. A considerable amount of equipment and supplies delivered under the programme has not been installed because of the shortage of cash resources required for proper installation, procurement of locally available materials and needed repairs. This situation has made all the more valuable interventions by UNICEF, the International Committee of the Red Cross (ICRC), the Office of the Humanitarian Coordinator in Iraq and international non-governmental organizations in funding the installation of equipment distributed to treatment plants. Where such equipment has been installed effectively, the overall efficiency of water treatment plants has improved. An impact assessment survey conducted by UNICEF during February 1999 in Diala, Missan and Ninevah governorates and Baghdad City indicated an overall increase in the efficiency of water treatment plants, ranging from 3.2 per cent in Ninevah to 19.1 per cent in Missan. The current overall efficiency ranges from almost 60 per cent in Ninevah to 76 per cent in Baghdad.

43. A special study was recently undertaken by UNICEF to review the performance of a large proportion of water treatment plants, compact units, boosting and pumping stations and sewage pumping stations in Ninevah, Missan and Diala governorates and Baghdad. Observers described the extent to which critical functions met minimum standards and compared these percentages with data from 1997. The increase in the efficiency of water treatment plants ranged from 3.2 per cent in Ninevah to 19.1 per cent in Missan. Among compact units, the change in performance ranged from an increase of 8.6 per cent in Diala to a decrease of 1.7 per cent in Missan. Overall pumping efficiency may have increased modestly, but residents' share of water varied and showed no obvious trend. In Baghdad, where population growth and the deterioration of the network have absorbed most of the gains from increased efficiency, per capita share of water has decreased from 218 to 200 litres per day. In Diala, lengthy power cuts have prevented the governorate from realizing any gains from increased efficiency and the per capita water share has dropped by 30 per cent. Although there have been increases in per capita share in other governorates, overall the coverage in 1999 remains roughly the same as in 1997.

44. In terms of water quality at treatment plants, the continuous availability of purification chemicals, especially liquid chlorine gas, and the maintenance of relatively higher water pressure in the network have contributed to enhanced water quality in almost all governorates. Continuing contamination in water reaching end-users is mainly caused by interruptions in electrical power supply and the deteriorating status of the water network. The reduction in the water pressure caused by power cuts allows contamination to penetrate the network through broken parts.

45. Monthly testing by the Ministry of Health has shown that water quality improved modestly in the course of 1998. Country-wide totals show a drop in the percentage of contaminated samples, from 12 per cent in the first quarter to 5 per cent in the fourth quarter. However, a relationship has yet to be established between improvements in the water quality test results and the incidence of water-borne disease, which continues to rise for certain diseases, although the rate of increase appears to have levelled off.

Agriculture

46. The most pressing issue in the agricultural sector throughout the country is the serious drought, which is threatening agricultural production and productivity during the 1998/1999 growing season and needs urgent attention. The Tigris Basin has seen the lowest water flow rate ever recorded. The drought could cause crop losses estimated at 37 per cent of wheat and 63 per cent of barley in rain-fed areas in the centre and south. As crop stand is poor and the plants in wilt stage, and as climatic conditions have not been favourable from mid-season to the present, all indications point to a wheat and barley crop failure. Livestock and poultry health and production will also be adversely affected as the availability of grazing resources become scarce. Animal fodder will become more expensive. Shortages of supplies will raise consumer prices of dairy and meat products and reduce the income-generation capacity of the population. Both irrigation wells and surface water resources will become limited, as many springs and seasonal rivers dry up. Consequently, insufficient water for irrigation will reduce the summer crop production and productivity.

47. As at 31 March 1999, supplies for the agriculture sector valued at $118,335,285 had arrived in Iraq since the start of the programme, of which an amount worth $40,295,779 (34 per cent) had been installed at sites or delivered to end-users. The focus of activity in this sector has been to provide agricultural and irrigation machinery and equipment, ground-spraying chemicals and animal vaccines, broiler and layer hatching eggs and day-old chicks, and to rehabilitate poultry production facilities.

48. There has been a substantial improvement in the timeliness of agro-chemical deliveries during the period under review. The total value of agro-chemicals delivered to the country is $26.6 million, and the total distribution of agro-chemicals increased significantly during the second half of the reporting period. An end-user survey in March 1999 and spot check observations revealed that the amount of agro-chemicals available at the governorate level has more than doubled. Agents have also received considerable quantities of agro-chemicals during the month of April 1999. The Government has recently reactivated the private agent system as part of the distribution channel to sell selected agro-chemicals to farmers in an attempt to improve access and speed of supply distribution, and that system is now operational throughout the centre and south, although its exact impact will not be evident for some time. An initial survey indicated that farmers were divided on the advantages of the new distribution system, with just over 60 per cent approving the change and just under 40 per cent preferring distribution through the Agricultural Supply Company stores. A FAO end-user survey in March 1999 showed that 4,000 small diesel and petrol irrigation pumps had been distributed to the 15 central and

southern governorates, helping to maintain the cultivation of 60,000 ha and contributing to a 8 to 10 per cent increase in production.

49. In the area of animal health, contracts for the rehabilitation of the cold chain system have been transferred from phase IV to phase V, and these items have therefore not yet arrived. During the last three months 33 per cent of the total quantities of supplies have been released from central warehouses, where, however, 49 per cent of the cumulative arrivals are still held in stock. Owing to transhumance, it remains impossible to obtain precise animal population numbers for each governorate. The State Veterinary Board is willing to coordinate an effective nationwide livestock census if outside assistance can be provided. An animal health sample survey was carried out by FAO in March 1999, covering 128 farmers in six governorates. Some 68 per cent of interviewed farmers obtained the required medication and services at State clinics, while 15 per cent had to resort to the private market. The survey confirmed that foot and mouth disease is currently a major cause of productivity loss and animal mortality, with 31 per cent of the sample survey livestock affected, confirming the severity of this disease. The Board has been unable to respond effectively to the outbreak because of a lack of diagnostic facilities, transport constraints and insufficient quantities of vaccines. A total of 500,000 doses of vaccine procured under phases I and IV were used but provided minimal response to the November 1998 outbreak.

50. In the poultry production sub-sector, 5.84 million broiler hatching eggs received to date, representing 33 per cent of the allocated quantity, have produced an estimated 4,435 tons of frozen poultry meat. This output has supplied an average 3.3 kg of meat to 1.3 million families at a subsidized price of ID 1,350 per kg. In addition to the limited quantities of poultry meat produced to date under the programme, the sub-sector also provides indirect benefits, including the creation of employment opportunities at each stage in broiler production. All phase IV hatching eggs reached the end of their production cycle in March 1999, and the cycle will recommence upon the arrival of phase V broiler hatching eggs. As fewer chickens are available for resale by their original purchasers on the open market, the price of poultry meat has risen higher than the earlier ID 1,800 per kg. A FAO end-user survey, carried out in March 1999, on 47 of the 300 small and medium-sized farms involved in the poultry rehabilitation programme, showed that 55 per cent of those interviewed breed programme chicks exclusively, while 45 per cent are breeding both programme and non-programme chicks. These farms are working, on average, at 57 per cent of their full production capacity, while an assessment carried out in December 1998 had indicated that hatcheries and slaughterhouses were working at 14 per cent and 22 per cent of their full capacity, respectively. Hatchability, measured at the hatchery level, was 71 per cent, which is considered to be normal, and included infertility and embryo loss due to poor handling during transportation. The 15 per cent mortality rate, measured at the grower level, is high compared to international industrial standards, because of the high incidence of infectious diseases and the shortage of rehabilitation spare parts. Sufficient arrivals of poultry drugs and vaccines during the reporting period addressed the existing shortages. The mortality rate at the farm level was within industrial standards, at under 10 per cent per cycle. The third and fourth batches will be delivered during the hotter summer months,

therefore an increased loss of live chicks and a drop in the hatching rate can be expected.

Electricity

51. As at 31 March 1999, electrical equipment valued at $90,472,754 had arrived in Iraq since the programme started, of which an amount worth $89,708,028 (99 per cent) had been distributed to installation sites in the centre and south of the country. The focus of activity in this sector has been the delivery of electrical equipment to 22 power plants and to the four maintenance departments for each of the electricity distribution authorities, with the objective of slowing the deterioration of the system by meeting emergency requirements.

52. While the main objective of the programme under phases I to III was emergency maintenance at power plants, phases IV and V have emphasized the rehabilitation of generating units at selected key power plants and enhancing power generation capacity through the installation of additional generating units, as well as the maintenance of the distribution and transmission networks. Currently, 87 per cent of phase I, 72 per cent of phase II, 50 per cent of phase III and 4 per cent of phase IV approved items have been received in the country and delivered to their destination power plants and distribution sites. Over 90 per cent of the received distribution network equipment has been installed at sites in the centre and south. Although implementation is progressing well, the quantities of equipment received are not sufficient to meet urgent maintenance requirements. In view of the increase in the electrical power demand, load shedding programmes continue to be applied to all types of consumers country-wide.

53. Power outages increased from last summer's average of 4 to 6 hours per day to more than 10 hours per day for Baghdad in January 1999, in spite of the fact that outages typically diminish during the winter months. At present, power outages average 6 hours per day. Successive incidents account for increased load shedding during the reporting period and underline the extremely unpredictable operating environment. A failure in one of the circuit breakers in the Baiji power plant (Salah Al Din governorate) resulted in a prolonged shut-down of the entire plant, and at present only four of the six units have returned to operation, generating about 30 per cent of the installed plant capacity. One of the units at the Mussaib power plant (Babylon governorate) with a design output capacity of 300 MW was forced to shut down following the failure of a number of blades in a turbine. This seems to be a common problem for all the units, as reported by the power station engineers, and could be a design fault which might continue to force outage of the units in the future. According to UNDP and the Department of Economic and Social Affairs, which have visited the Nassiriya power plant (Thi Qar governorate), the plant is generating only 12 per cent of the installed capacity. Plant output is expected to improve by 350 MW once the rehabilitation of two of its units is completed by the end of June 1999. Recent visits to the Dura power plant (Baghdad governorate) and Hartha power plant (Basrah governorate) indicate that these key plants are operating at only about 36 per cent and 23 per cent, respectively, of their installed capacities. A failure in one of the sub-stations in Salah Al Din governorate resulted in a brief loss of power for the entire province.

54. Overall, the pace of implementation has increased during the reporting period, in view of an improvement in the rate of installation of equipment and parts at the electricity distribution level. The anticipated installation of six additional gas turbine units at the Mullah Abdullah power plant by the end of August 1999 will add 220 MW to the national grid. With the expected 350 MW output from the two units at the Nassiriya power plant upon their rehabilitation, as well as the rehabilitation of the Baiji power plant units and the Mosul gas power plant units, a notable impact on power generation at the national grid level can be expected.

55. However, the uncoordinated arrival of complementary items has resulted in the disruption of the planned maintenance schedules for the power plants. Difficulties in equipment handling at warehouses and the lack of proper cranes and communication equipment at power plants also hindered implementation. So far, it is difficult to measure any notable improvement in electricity generation attributable to programme inputs. The total power supply did not improve at the system level, and overall reliability declined, owing to the continuing deterioration and increasing peak load demand during the summer months. The results of an official technical assessment, partially confirmed by United Nations observations, suggest that any localized increase in power output is offset by the overall rate of deterioration in other components in the power stations and parts of the distribution network. Consequently, power plants and the distribution network will continue to deteriorate in 1999, albeit at a reduced rate, until rehabilitation projects under phases IV and V are implemented or new additional generation capacity is provided to enhance the existing generation system.

56. The number of accidents involving maintenance personnel in the electricity sector has risen to an alarming level. Recent reports indicate a total of 13 incidents in Basrah governorate alone, including 3 deaths and 10 injuries in 1998; of nine incidents reported in Kerbala governorate in 1998, three were fatal. There were a total of 71 accident-related casualties in 1998 in the sector, including deaths and injuries. These incidents would be reduced if proper safety materials such as tools, mobile cranes, testing equipment, helmets, belts, gloves, communication equipment and shoes were ordered and authorized.

Education

57. As at 31 March 1999, education supplies valued at $30,311,494 had arrived in Iraq since the start of the programme, of which an amount worth $16,698,944 (55 per cent) was distributed to the south and centre of the country. The focus of activity in this sector has been to provide materials for school rehabilitation, materials for repairing plumbing facilities, classroom furniture, stationery supplies, teaching aids, physical education supplies and materials for the rehabilitation of the Ministry of Education printing press. The activity in phase V is expected to focus principally on the procurement of classroom furniture and to provide teaching aids for the Ministry of Higher Education.

58. A programme impact assessment conducted by UNESCO, UNICEF and the Geographical Observation Unit in February 1999 surveyed a total of 157 primary

and intermediary or secondary schools in five governorates, namely Baghdad, Basrah, Missan, Salah Al Din and Ninevah. A previous assessment in the same governorates early in 1997 showed that 65 per cent of the facilities of each school surveyed offered appropriate and safe learning conditions before the delivery of goods ordered under resolution 986 (1995). The recent survey indicates further deterioration in the school infrastructure: only 54 per cent of the facilities of each school surveyed offer appropriate and safe learning conditions for students and teachers. Building deterioration is apparent in water and sanitation facilities, playgrounds and classrooms, ceilings, walls and roofs and essential electrical installations. Schools in Basrah and Missan showed the highest level of deterioration among all selected governorates for the survey. Only 13 per cent of the surveyed schools in the centre and south were rehabilitated with programme inputs, while 14 per cent of the schools were rehabilitated with materials from other sources.

59. Survey results indicate that schools in the centre and south experience acute shortages of materials essential to the teaching and learning environment. For the sample of schools in the five governorates visited, the average school had 55 per cent of the school desks which were required, 23 per cent of the minimum teaching materials required for classrooms and 64 per cent of the text books required. The average school had 82 per cent of the blackboards required, and this is probably because the Ministry of Education had emphasized ready-made materials, which were relatively easy to procure and install. The Government's emphasis on the procurement of classroom furniture and school rehabilitation for the primary and intermediary/secondary education sub-sector in the centre and south, as witnessed throughout the first four phases, has had very little positive impact on overall school attendance or the quality of education. In view of this, the Office of the Humanitarian Coordinator in Iraq, in its discussions with the Ministry of Education, has tried to impress on the Government the need for greater emphasis on the procurement of textbooks and teaching aids.

60. The slow pace of delivery of inputs to this sector is, as previously reported, due to the absence of transportation, as well as to the lack of resources for installation. Trucks ordered under phase III for this purpose were rejected by the Ministry of Education as they did not meet the specifications stipulated in the contract. Negotiations on the required specifications are ongoing with the supplier.

61. For the higher education sub-sector, programme supplies include paper, medical books, academic journals, basic engineering textbooks, education materials and equipment, laser printers, microscopes, photocopiers, printing, medical, dental, laboratory, sports and recreational equipment and electrical fittings. Higher education has been allocated 34 per cent of the total allocations for the education sector under phases I to IV. The efficiency of commodity distribution to end-users in this sub-sector has varied from 100 per cent under phase II to 19 per cent under phase IV.

Improving telecommunication support for the humanitarian programme

62. In response to the Secretary-General's supplementary report and resolution 1153 (1998), the Government of Iraq proposed a range of additional sectors and activities for funding under the humanitarian programme. Among these was telecommunications. As the Ministry of Communications has noted and United Nations observers have reported, the extremely poor state of telecommunication services impacts negatively on the efficient procurement and distribution of humanitarian supplies.

63. In the enhanced distribution plan, the Government of Iraq proposed a range of projects and equipment whose relationship with increased service to the humanitarian programme was not clear. Consequently, the Secretary-General was unable to approve either the telecommunications requirement or a specific allocation at that time. To establish a sound technical basis for any endorsement of telecommunications in the distribution plan, the United Nations invited the relevant Iraqi authorities to participate in a technical review, which was conducted for the United Nations by experts from the International Telecommunication Union (ITU) in August 1998. Following confirmation that the Government of Iraq accepted the report of the ITU experts, the Executive Director of the Office of the Iraq Programme offered additional assistance so that the Ministry of Transport and Communications could revise its submission in conformity with the rest of the distribution plan. This was eventually submitted by the Ministry of Foreign Affairs to the Humanitarian Coordinator on 1 April 1999. The Secretary-General approved the revised part seven of the distribution plan for phase V, concerning telecommunications, on 13 May 1999 (see S/1999/559).

64. The priority requirements identified by the joint technical review and endorsed by the Government of Iraq in its revised phase V submission included the replacement of Baghdad Junction Network's analogue with a digital transmission link. The direct beneficiaries of this project in terms of facilities involved in the humanitarian programme would include 34 hospitals, 98 drug distribution points, 6 ration centres, and several thousand food agents. The complete replacement of three Baghdad exchanges would comprise facilities through which the Ministry of Health and Kimadia communicate with the rest of the country's health services, including 132 public hospitals, 1,500 primary health care centres and 52 private hospitals. To increase effective contact between Iraqi technical ministries and their suppliers, the Government of Iraq envisages replacing unreliable international communication facilities with a new earth station and international exchange and the analogue microwave link between them. Similar communications projects will be undertaken when funding is available. The United Nations will undertake comparable projects in the three northern governorates with due regard to the compatibility of telecommunication systems with those operating in the 15 governorates.

B. Programme implementation in Dahuk, Erbil and Sulaymaniyah

Food

65. As at 31 March 1999, foodstuffs valued at $423,049,293 had been distributed to the three northern governorates under the bulk purchase agreement with the Government of Iraq since the start of the programme. The focus of activity, which in this sector parallels that in the centre and south, is to provide a food basket of 2,200 kilocalories per person per day, during each of the six months in phase V, to every registered individual. As in the centre and south, the distribution of additional food commodities under the enhanced food basket programme began in the north in January 1999.

66. The political and military developments in November and December 1998 had no significant bearing on the flow of food supplies to the north during the reporting period. However, the efficiency of dispatch operations was in part compromised by problems with the quality of the packaging of some consignments received during the past few months. WFP has returned those items to the Government. In addition, given the comparatively lower rates of timely receipt of full rations by the population in the north, WFP is seeking methods to improve the efficiency of food deliveries, so as to ensure the equity of programme distributions throughout the country.

67. WFP spot checks have noted a marked improvement in deliveries from warehouses or silos to flour agents during the reporting period, 95 per cent of whom had received full allocations in a timely manner. A general review of the delivery mechanism is currently being conducted by WFP, in addition to revisions of observation and analysis methods.

Health and nutrition

68. As at 31 March 1999, medical equipment procured directly by WHO and UNICEF valued at $23,939,729 had arrived in the three northern governorates, of which inputs valued at $22,111,016 (92 per cent) have been distributed since the start of the programme. As at 31 March 1999, of the bulk purchased medicines allocated under the first four phases to the value of $88.3 million, only $31.5 million (36 per cent) has been received in the north. As at 31 March 1999 nutrition supplies procured directly by UNICEF and WFP, valued at $17,524,554 had arrived in the three northern governorates since the start of the programme, of which $15,717,768 (89.6 per cent) have been distributed. The focus of activity in this sector has been to maintain a reliable flow of medicines and medical equipment, as well as to provide therapeutic milk and high protein biscuits to malnourished children, pregnant women and lactating mothers.

69. WHO has completed the renovation of three water quality control laboratories, four nursing schools and one workshop for repair of medical equipment, and is in the process of completing two departments in the teaching hospital of Erbil. It has also contracted for the local manufacturing of furniture and equipment for nursing schools, warehouses, medical and dentistry schools. WHO has also supported training activities for epidemiological surveillance, upgrading of skills and knowledge for different categories of health personnel in the areas of malaria control, water quality monitoring,

vital health statistics, cholera prevention and management, maternal and child health, among others. It has, in addition, reproduced in large numbers several WHO publications for distribution to health personnel.

70. During the reporting period, UNICEF health activities in the north continued to focus on strengthening maternal and child health services at primary health facilities. In this context, two rounds of national immunization days for polio and two rounds of polio mopping-up campaigns were conducted, providing 95 per cent coverage. Although a shortage of BCG vaccine was experienced throughout most of the reporting period, the 42,000 doses received in April 1999 have eased the problem. To raise tetanus toxoid immunization coverage rates, UNICEF, in collaboration with the local health authorities of the three northern governorates, conducted two rounds of immunization campaigns for 56,716 women of child-bearing age. In addition, to raise the capacities of the expanded programme of immunization services of the local health authorities, 46 generator houses in 46 health facilities, and 4 cold rooms have been constructed. This has facilitated the proper storage of vaccines in warehouses and immunization centres. Simultaneously, 52 health personnel and staff were trained in immunization skills, the use of electrocardiogram apparatus and computers. UNICEF, in collaboration with implementing partners, has also distributed 2,205 ortho-prosthetic devices, crutches for disabled children and rubber tips. Physiotherapy treatment was provided to 1,475 patients, and 172 additional patients, including children below the age of 15, are registered for further treatment. Ortho-prosthetic devices have been distributed to 34 patients, and raw material for the repair of such devices to 534 patients. A total of 568 ortho-prosthetic devices have been repaired.

71. The nutritional status survey conducted by UNICEF and the local health authorities in November 1998 shows that the prevalence of general malnutrition is continuing its downward trend, from 19.3 per cent in August 1996 to 13.6 per cent in November 1998. Acute malnutrition for children under five likewise declined, from 2.7 per cent in April 1998 to 1.7 per cent in November 1998. However, chronic malnutrition has remained at about 24 per cent over the past six months, which is comparably high for the region. For all types of malnutrition (chronic, underweight and acute), there has been a gradual reduction in prevalence since 1996. This reduction has continued throughout the last six months. The results reflect a continuing improvement in feeding practices, and in the control of diarrhoea and infections in young children. These reductions are due in part to the targeted nutrition programme, managed by UNICEF in conjunction with the local health authorities, as well as the WFP complementary programme of distributing supplementary ration baskets to malnourished children and their families.

72. Since the nutrition programme started in July 1997, a total of 230 tons of therapeutic milk and 189 tons of high protein biscuits have been distributed to 17,770 severely and 116,000 moderately malnourished children on a cumulative basis over the period. Over the last six months 14,200 malnourished children, 1,000 of whom were severely malnourished and 13,200 moderately malnourished, were supported under the UNICEF feeding programme. WFP has distributed 28,924 tons of food commodities under its nutrition programme since the start of the programme.

73. As insufficient funds were allocated to the sub-sector under phase IV, the WFP nutrition programme was modified during the reporting period to ensure that beneficiary groups were not unduly affected by a temporary shortfall in commodity availability. WFP concentrated its assistance on the most nutritionally vulnerable categories of beneficiaries, namely, malnourished children and their families, pregnant women and nursing mothers, patients in hospitals and residents in social institutions. In order to ensure that these groups received full or near full requirements, WFP reduced the supplementary rations distributed to female-headed households during the period from November 1998 to January 1999. Those households were re-incorporated into the caseload in February 1999; it should be noted that they continued to receive the full general ration prescribed in resolution 986 (1995) throughout the reporting period.

74. UNICEF supported a child protection programme in the north under the nutrition sector during phase II, and under health during phases III and IV. As at 31 March 1999, supplies for the child protection programme valued at $3,237,674 had arrived in the three northern governorates since the start of the programme, of which an amount worth $1,383,923 (42.7 per cent) was delivered to counterparts. Since the inception of this programme, a combined total of 581 social workers, teachers and caregivers has been trained with the aim of improving the quality of services to disadvantaged children, and of these 404, or 70 per cent, have received training in the past six months. Services for unaccompanied children are provided through 25 residential home centres under the auspices of the local authorities. Training has also been given to 163 social affairs managers and administrators. Furthermore, a training course targeting 40 teachers and health workers and 30 parents of deaf and mute children was undertaken. UNICEF has also provided support for the development of 700 mine awareness kits to be used in the classroom and for facilities for the production of orthotics and ortho-prosthetic devices for disabled children.

Water and sanitation

75. As at 31 March 1999, supplies for the water and sanitation sector valued at $44,919,373 had arrived in the three northern governorates since the start of the programme, of which an amount worth $34,247,718 (76 per cent) had been installed at sites or delivered to end-users. The focus of UNICEF activity in this sector has been to improve the quantity and quality of water in urban areas by regular maintenance of existing treatment sites and pipe networks and by introducing new facilities in rural areas for improving sanitation and clean water access. WHO, in collaboration with UNICEF, monitors levels of water contamination. Because of shortfalls in funding to this sector under phase IV, only UNICEF rural water and sanitation projects could be implemented. This situation is being remedied under phase V, where priority has been given to urban projects.

76. UNICEF continues its programme of maintaining treatment plants, replacing defective pumps, and surveying and repairing leaks in the distribution network in urban areas. A total of 271 pumps have been replaced and of these 135, or nearly 50 per cent, have been replaced in the past six months. Repairs and extensions of over 130 km of pipes have been completed; of these, 110 km or 74 per cent have been completed in the past six months. A total of

33 generators or transformers have been installed or made available to provide back-up power for pumping stations. The supply of chlorine and alum sulphate is ample, and this combination of inputs has served to provide increasing quantities of treated water to the urban population. So far, a total of 328 tons of chlorine gas or powder and 1,120 tons of alum sulphate have been distributed to the water system in the three governorates, benefiting over 1.2 million people.

77. Under phases I to III, of the planned 414 chlorinators, 305 or 74 per cent have been installed, strengthening the capacity of the local authorities to provide safe drinking water to nearly 800,000 people in the urban and semi-urban areas. The programme planned to construct or repair a total of 275 chlorinator houses under the first three phases and, to date, the repair and rehabilitation of 91 or 33 per cent pump and chlorinator houses have been completed, benefiting over 380,000 people. Similarly, 8 stores and water treatment plants have been renovated.

78. Under the first three phases, 20 garbage compactors and 11 sewage tankers were delivered, which handle nearly 600 tons of solid and liquid waste per day in all the three major cities and surrounding towns. A large number of vehicles, including 13 garbage compactors, 4 sewage tankers, 8 tractors with trailers, 2 arm rollers, 2 shovels and 2 dumpers have been supplied under phase IV. This additional sanitation fleet has reinforced the capacity of the local authorities by over 50 per cent. As regards the construction of sewage channels, a total of 7,441 metres have been completed.

79. As part of the water and sanitation sector, WHO collaborates with the local health authorities in testing water samples at the points of treatment and recent tests show progressive improvement. The incidence of bacteriological contamination has dropped from 24 per cent of test samples one year ago to 13 per cent of samples six months ago, to 10 per cent of samples in the most recent round of testing.

80. UNICEF planned to undertake 780 rural water projects under phases I to III and of these 387 or 50 per cent have been completed. In rural sanitation, UNICEF planned to construct 5,273 household and 75 community latrines and of these 2,818 household latrines, or 53 per cent, and 60 community latrines, or 80 per cent, had been completed at the time of reporting. The need for rural water projects evolves as settlements are rehabilitated, and UNICEF works closely with the United Nations Centre for Human Settlements (Habitat) to update and meet these needs. The formation of rural committees has provided for local maintenance of facilities for disseminating information on personal hygiene and the proper disposal of sewage. UNICEF has estimated that the water projects have increased the availability of clean water from about 25 litres per person per day to 50 litres per person per day. Consequently, water coverage is expected to increase from around 60 per cent prior to the implementation of the programme to about 75 per cent and sanitation from 46 per cent to over 52 per cent.

Agriculture

81. As stated in paragraph 46 above, the impact of drought in the three northern governorates is likely to be as severe as in the centre and south. According to a recent survey by FAO, there will be an estimated reduction of 17 and 32 per cent, respectively, in cultivated areas for wheat and barley, and a corresponding decline in yields of 9 and 14 per cent. Hydropower electricity generation will be very limited, as water levels in the reservoirs are dropping. This, in turn, will negatively affect poultry production and the effectiveness of irrigation systems. The drought is expected to threaten the reforestation programme and enormous efforts will be needed to save seedlings in the catchment area of the dams.

82. As at 31 March 1999, supplies valued at $72,248,545 had arrived since the start of the programme, of which an amount worth $56,487,102 (78 per cent) had been installed at sites or delivered to end-users. The focus of FAO activity has been to provide a range of agricultural inputs, including spare parts and machinery, pumps, seeds and fertilizer, to conduct plant protection and animal health campaigns, to implement an afforestation programme, to rehabilitate poultry production facilities, and to revive the agricultural service infrastructures.

83. Animal populations continue to benefit from the provision of vaccines and drugs against such common diseases as anthrax, blackleg, sheep and goat pox, enterotoxaemia, rinderpest, foot and mouth disease and external and internal parasites. The region is experiencing outbreaks of foot and mouth disease and peste des petits ruminants, resulting in a high death toll of ruminants.

84. The establishment of eight forestry nurseries in the three northern governorates to raise 3.2 million forest tree seedlings has been completed. Its aim is to reforest areas affected by natural degradation and soil erosion with special emphasis on the catchment areas of dams and rivers. As at 31 March 1999, 150,000 forest tree seedlings have been planted in 325 hectares of the catchment areas of Dokan, Derbendikhan and Dohuk dams. A forest survey has been launched to assess the forest inventory.

85. The provision of irrigation inputs has helped vegetable, orchard and rice growers. To date, 2,549 farmers, covering 4,592 hectares of arable land, have benefited from the cumulative impact of portable and tubewell irrigation pumps and pipes, the construction of 25 small-scale irrigation projects and the rehabilitation and maintenance of existing irrigation structures.

86. The distribution of poultry feed, vaccines, drugs, equipment and layer chickens has been the driving force for the reactivation of the poultry industry and the increased availability and affordability of animal protein for the population. In addition to a large poultry project in Dohuk governorate, 300 small and medium-sized farms are currently in production, 9 hatcheries and 5 poultry slaughter houses are fully operating, in contrast to the 25 poultry houses in operation at low capacities prior to the start of the programme. As a result, market prices for one-day chicks have been reduced by more than 50 per cent and prices for live broiler meat by some 30 per cent.

87. The current reactivation of the food processing sector should eventually help to stabilize markets for the farmers' produce, increase employment and generate income. Contracts have been awarded for tomato paste and fruit juice concentrates in Erbil governorate and vegetable oil extraction and milk processing plants in Sulaymaniyah governorate. Projects for the reactivation of vegetable oil extraction and milk processing plants in Dohuk and a fruit jam plant in Koysinjaq are under consideration.

Electricity

88. As at 31 March 1999, electrical equipment valued at $23,050,023 had arrived in the three northern governorates since the start of the programme, of which an amount worth $17,084,427 (74 per cent) had been distributed to installation sites. The focus of activity has been to arrest the deterioration in the distribution and transmission networks, as well as to rehabilitate the two hydropower plants at Dokan and Derbandikhan dams and emergency power generation for Erbil township.

89. Replacement of the anchorage bolts for the spillway gates and overhaul of the operating mechanisms were completed for the Derbendikhan dam. The gates were successfully dry tested and they will be wet tested when the water level rises. Work on rock refacing upstream of Derbendikhan dam is nearing completion. The draft tube gate hoist mechanism has been delivered and is being installed. The materials required for the repair of leaking draft tubes have been procured and work is expected to commence soon.

90. Four 2.2 MW diesel generators, which will provide emergency power supply to water pumping stations and hospitals in Erbil governorate, have been installed and are expected to be commissioned by the end of May 1999. A 33-kV power transmission line with an associated 5-MVA mobile substation was erected and energized to provide reliable power to the Ifraz water supply station, which provides a substantial portion of the water supplied to Erbil City.

91. The rehabilitation of three substations in Dohuk governorate has been completed. The major task of preparing specifications for the Azmir substation in Sulaymaniyah and the North Erbil substation, both newly planned, was completed and a tender for these and integrated package turnkey projects is being processed.

92. The rehabilitation of the distribution network has progressed, albeit slowly because of the slow arrival of transformers and associated supplies. A total of 245 distribution transformers have been installed during the reporting period and the urgently required ancillary items have been procured in the field. The survey of the distribution network, conducted with a view to improving its reliability and efficiency, was completed and the data obtained will be analysed using specialized software packages.

93. The inflow to the Dokan and Derbendikhan dam reservoirs causes concern, as there has been no significant snowfall in the mountains during the winter and consequently the runoff during April and May 1999 has been low. The October 1998 to March 1999 average inflow to Dokan reservoir was 97 m^3/s compared with the long-term average of 216 m^3/s, and the figure for Derbendikhan

reservoir was 65 m^3/s against 191 m^3/s. On the basis of current trends, the average inflow for the 1998-1999 annual season is estimated at 85 m^3/s for Dokan and 45 m^3/s for Derbendikhan. To sustain normal electricity generation, the average annual inflow should be about 200 m^3/s for Dokan and 180 m^3/s for Derbendikhan, and the current seasonal inflows may meet the requirement only by up to 42.5 and 25 per cent, respectively. Hence, low power generation during the ensuing year will seriously affect living conditions and further compound the humanitarian situation. Moreover, large amounts of water are usually discharged from the reservoirs to meet irrigation needs during the summer months, which could further reduce total power generation during the winter.

94. The arrival of equipment and material procured under phase I is complete, while that procured under phases II and III continues to arrive slowly, thus affecting the rate of implementation. The modalities of programme execution are currently undergoing change, and direct execution by UNDP is expected to enhance the speed of procurement and implementation. The overall situation in the electricity sector continues to warrant serious concern, however. The entire region is still experiencing severe electricity supply shortages. Sulaymaniyah and Erbil governorates are being supplied with electricity generated from two power plants located in Sulaymaniyah through a transmission and distribution network, while Dahuk governorate receives grossly insufficient power supply from the central Government grid. The two hydropower plants in Sulaymaniyah are in urgent need of rehabilitation, which is ongoing. In view of the overall power shortage in the three northern governorates, a feasibility study to evaluate the various options in power generation will be undertaken in the next few months and, on the basis of its recommendations and in consultation with the Government, generating plants are expected to be set up. The implementation is progressing equitably, according to the priority lists prepared by the electricity authorities and the availability of the necessary inputs.

Education

95. As at 31 March 1999, education supplies valued at $24,413,381 had arrived in the three northern governorates since the start of the programme, of which an amount worth $18,027,287 (73.8 per cent) was delivered to schools and printing presses. The focus of activity has been the rehabilitation of primary and secondary schools, the building of a limited number of new schools, the provision of student and teacher desks, along with other educational supplies, support for teacher training centres, assistance for expanding printing press facilities and support for universities and institutes.

96. A total of 114,480 student desks and 3,000 staff desks have been produced and distributed by UNESCO during phases I to III. Under the separate programmes of UNICEF and UNESCO, 281 schools have so far been rehabilitated. A total of 58,190 education kits ordered under phases I and II have been distributed. Additional school kits procured under phases III and IV will be distributed at the beginning of the 1999/2000 school year. UNESCO reports the distribution of 500,000 secondary school textbooks to the northern governorates, of the 2 million textbooks stipulated by an agreement between UNESCO and the Ministry of Education in Baghdad. The remaining 1.5 million textbooks are expected to be printed upon the arrival of material in Baghdad. Under phase III UNICEF distributed 12,999 kerosene heaters and 6,160 blackboards to schools. The chalk

factory commissioned by UNESCO under phase I is expected to open in September 1999. Meanwhile the organization has distributed 2.5 million chalk sticks to fill the gap.

97. In a joint assessment of the programme's impact, conducted in February 1999, UNESCO, UNICEF and the Geographical Observation Unit surveyed a total of 143 primary and intermediary or secondary schools in Erbil, Dohuk and Sulaymaniyah. Survey results show that the average school had 76 per cent of the number of desks required, 76 per cent of the minimum amount of teaching materials, 49 per cent of the minimum number of textbooks and 88 per cent of the minimum number of blackboards. There have been distinct improvements in school facilities. Despite existing shortages, the results of the survey indicated that 99 per cent of the surveyed schools are receiving programme supplies.

98. Programme interventions have contributed to the slowing down of the overall deterioration in school buildings, as investment in the primary and secondary levels has been sustained for two consecutive school years. In the short term, the sustained availability of essential items and aids for students and teachers has also contributed to stabilizing school attendance to some degree and improved the physical learning and teaching environment in schools.

99. WHO supported an education project under phase II for nursing and for higher education under phases IV and V. Two nursing schools and two hostels for nurses have been renovated and furnished. Training equipment and teaching and learning materials have been procured or printed. Similarly, activities for upgrading education skills and curriculum development have continued. Higher education medical journals and reference books for medical colleges are being delivered and equipment has been ordered for medical colleges, dentistry schools and other health institutions for paramedical personnel. The library of the medical college in Sulaymaniyah has been refurbished.

Rehabilitation of settlements

100. As at 31 March 1999, supplies and funds for the settlement rehabilitation sector valued at $42,594,885 had arrived in the three northern governorates, of which $20,719,836 (45 per cent) was utilized or distributed. The focus of activity has been to rehabilitate housing, infrastructure and community services in urban, semi-urban and rural areas to encourage the voluntary or assisted return of internally displaced persons and enable them to settle on a permanent basis.

101. The approach of the United Nations Centre for Human Settlements (Habitat) in each location chosen for rehabilitation is to develop a package of inputs in consultation with local authorities. The package may include shelter or housing units and a range of other facilities, such as roads, bridges, schools, water supply, sanitation facilities and services for agriculture. Projects, therefore, include a range of different construction activities. Of 608 projects initiated, 299 have been completed, 238 are under active construction and 71 projects are at planning or tendering stage.

102. Education and health facilities, water supply and access roads are the most prominent among the support services provided to rehabilitated centres and

villages. Of the 223 education facilities planned under the five phases, 106 are completed, 89 are under active construction and 28 at the planning or tendering stage. Of the 126 water and sanitation projects, 57 are completed, 62 are under construction and 7 are in the planning or tendering process. A total of 83 access roads have been planned, covering 264 villages, of which 48 access roads have been completed, 24 are under construction and 11 are in planning. The number of health centres completed is 31, 25 are under construction and 11 are in planning, of the 67 planned. One of the principal difficulties is still that the completion of health centres proceeds faster than the local authorities and WHO are able to staff and equip them.

103. During the reporting period, Habitat carried out an in-depth review of the impact of its programme, which revealed that 30,000 people have been provided with housing units and 50,000 students with new schools, 203 villages are being serviced by new health centres and 114 villages with water systems, and 264 villages have been reached with access roads. In total, since the start of the programme, 1,050 villages have been provided with services or shelters, benefiting over 250,000 rural people. In the urban and semi-urban areas, over half a million people have benefited.

Mine-clearance

104. As at 31 March 1999, supplies and funds for the mine-clearance programme valued at $10,552,400 had arrived in the three northern governorates since the start of the programme, of which an amount worth $8,160,526 (77 per cent) was utilized or distributed. The focus of activity has been to identify existing mine fields, train local deminers, field survey teams and prosthetic centre staff and carry out mine-clearing operations and provide support to mine victims.

105. The project has trained a further local 150 deminers, 8 paramedics and 26 team leaders during the second half of the reporting period, forming an additional three 37-man teams. These teams were deployed for one month but shortages in communications equipment and problems experienced with maintenance of the new mine detector forced the United Nations Office for Project Services to stand down the teams until the situation is resolved with the Ministry of Foreign Affairs. In addition, the staff of the Prosthetic Limb Centre of Dahuk was provided with a month-long training. The internal monitoring and evaluation programme using two locally staffed monitoring and training teams has started, as well as the evaluation and the use of local personnel for manual clearance teams. To date, seven of the manual clearance teams now comprise only local staff.

106. Operationally, UNOPS has cleared 459,151 m^2 of agricultural, orchard, residential and grazing land during this period. This represents 72 per cent of the total output for the 11-month period of operations since May 1998. In addition, over 1,420 devices have been destroyed during this period. The level one survey teams have in general surveyed 110.3 km^2 of minefields and interviewed 3,126 disabled people, including mine victims, during the reporting period. The level two survey teams have technically surveyed 490,227 m^2 of minefields; and 213,828 m^2 of minefields have been surveyed at level three and returned to landowners. The two prosthetic centres in Halabja and Diana have

produced and fitted 285 prostheses, provided physiotherapy for 671 patients, prosthesis maintenance for 95 patients, 69 walking aids to patients and treated 1,192 patients for injuries related to mine accidents.

107. The increase in programme productivity is the result of improved drills, management, tasking and the introduction of dogs in support of mine-clearance operations. The United Nations Office for Project Services has conducted a number of project briefings for local authorities at all levels in an effort to enhance the project profile and foster a better understanding and involvement in the priority of work setting.

V. OBSERVATIONS AND RECOMMENDATIONS

108. I wish to reiterate the observations and recommendations contained in my report to the Security Council on the review and assessment of the implementation of the humanitarian programme, submitted on 28 April 1999 (S/1999/481, paras. 114-127).

Annex I

Status of the United Nations accounts pertaining to the Iraq Programme

1. As at 31 March 1999, of the $5.2 billion authorized under Security Council resolution 1210 (1998), $1,606.4 million had been deposited into the account for phase V, bringing total oil sales since inception to $10,993.2 million.

2. The allocation of total oil proceeds received from inception to date and the corresponding expenditures are as follows:

(a) $5,508.0 million has been allocated for the purchase of humanitarian supplies by the Government of Iraq, as specified in paragraph 8 (a) of resolution 986 (1995). An amount of $104.7 million of interest earned in this account was utilized for the purchase of humanitarian supplies in the central and southern governorates of Iraq. In addition, $238.0 million was due for the reimbursement of bulk purchases made by the Government of Iraq for northern Iraq and distributed by the United Nations Inter-Agency Humanitarian Programme. Letters of credit issued by the Banque nationale de Paris on behalf of the United Nations for the payment of those supplies for the whole of Iraq amounted to $5,610.7 million under phases I to V;

(b) $1,350.2 million has been allocated for the purchase of humanitarian goods to be distributed in the three northern governorates by the United Nations Inter-Agency Humanitarian Programme, as specified in paragraph 8 (b) of Security Council resolution 986 (1995) and as revised by paragraph 2 of Council resolution 1153 (1998). Expenditures recorded for humanitarian goods approved by the Security Council Committee amounted to $881.6 million;

(c) $3,269.0 million has been transferred directly into the United Nations Compensation Fund, as specified in paragraph 8 (c) of resolution 986 (1995). As at 31 January 1999, a total of $125.4 million had been allotted to cover the operating expenditures of the Compensation Commission and an amount of $2,716.2 million for payment of first, second, third, fourth and fifth instalments of A and C claims;

(d) $230.0 million has been allocated for the operational and administrative expenses of the United Nations associated with the implementation of resolution 986 (1995), as specified in paragraph 8 (d) of the resolution. Expenditures for administrative costs for all United Nations entities involved in implementing the resolution amounted to $152.9 million;

(e) $78.0 million has been allocated to the United Nation Special Commission for the disarmament of Iraq for its operating expenses, as specified in paragraph 8 (e) of the resolution. Expenditures for the Commission amounted to $55.2 million;

(f) $425.2 million has been set aside for the transportation costs of petroleum and petroleum products originating in Iraq exported via the Kirkuk-Yumurtalik pipeline through Turkey, in accordance with paragraph 8 (f) of the

resolution and in line with procedures adopted by the Security Council Committee. Of that amount, $338.0 million has been paid to the Government of Turkey;

(g) $103.9 million has been transferred directly to the escrow account established pursuant to resolutions 706 (1991) of 15 August 1991 and 712 (1991) of 19 September 1991 for the repayments envisaged under paragraph 6 of resolution 778 (1992) of 2 October 1992, as specified in paragraph 8 (g) of resolution 986 (1995) and subsequently in paragraph 34 of my report of 25 November 1996 (S/1996/978). The total of repayments made amounted to $84.3 million.

Annex II

Oil proceeds and humanitarian supply letters of credit as at 31 March 1999

Oil proceeds			
Phase	Last deposit	Number of letters of credit	Value of letters of credit from oil sales (United States dollars)
I	27 June 1998	123	2 149 806 395.99
II	2 January 1998	130	2 124 569 788.26
III	30 June 1998	186	2 085 326 345.25
IV	28 December 1998	280	3 027 147 422.35
V (current)	As at 31 March 1999	298	1 573 858 234.90[a]
Totals		1 017	10 960 708 186.75

[a] Of the expected oil proceeds of $3,428,000,000, only $1,573,858,234.90 had been received as at 31 March 1999; oil proceeds may vary owing to market price fluctuations.

Humanitarian supply letters of credit for ESB (53%) account and bulk procurement			
Phase	Number of letters of credit opened	Value of letters of credit opened (United States dollars)	Bank payments made on delivery (United States dollars)
I	867	1 229 078 786.79	1 205 873 388.92
II	531	1 197 385 722.53	1 121 719 189.01
III	628	1 175 751 165.29	978 917 022.74
IV Humanitarian supplies	636	1 440 203 396.34	701 733 555.39
V Oil spare parts	393	220 760 254.59	511 245.66
VI (current)	101	347 515 754.40	475 000.00
Totals	3 156	5 610 695 079.94	4 009 229 401.72